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jc520 U.S. PTO  
66/10/1999**UTILITY****PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No. 29193-pa

First Inventor or Application Identifier Kevin Mark McFarland

Title Modular Knock-Down Tanning Bed

Express Mail Label No. EL217259364US

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1.  Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2.  Specification [Total Pages 18]  
(preferred arrangement set forth below)
  - Descriptive title of the Invention
  - Cross References to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to Microfiche Appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
3.  Drawing(s) (35 U.S.C. 113) [Total Sheets 8]
4. Oath or Declaration [Total Pages 1]
  - a.  Newly executed (original or copy)
  - b.  Copy from a prior application (37 C.F.R. § 1.63(d))  
(for continuation/divisional with Box 17 completed)  
[Note Box 5 below]
    - i.  DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).
5.  Incorporation By Reference (useable if Box 4b is checked)  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

6.  Microfiche Computer Program (Appendix)
7. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
  - a.  Computer Readable Copy
  - b.  Paper Copy (identical to computer copy)
  - c.  Statement verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

8.  Assignment Papers (cover sheet & document(s))
9.  37 C.F.R. § 3.73(b) Statement  
(when there is an assignee)  Power of Attorney
10.  English Translation Document (if applicable)
11.  Information Disclosure Statement (IDS)/PTO-1449  Copies of IDS Citations
12.  Preliminary Amendment
13.  Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
  - \* Small Entity Statement(s)  Statement filed in prior application, (PTO/SB/09-12) Status still proper and desired
14.  Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
15.  Other: .....
16.  Other: .....

\* NOTE FOR ITEMS 1 &amp; 14: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

 Continuation     Divisional     Continuation-in-part (CIP)    of prior application No: \_\_\_\_\_ / \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_

Group / Art Unit: \_\_\_\_\_

18. CORRESPONDENCE ADDRESS  
 Customer Number or Bar Code Label (Insert Customer No. or Attach bar code label here) or  Correspondence address below

Name	Bernhard Kreten			
Address	77 Cadillac Drive, Suite 245			
City	Sacramento	State	California	Zip Code
Country	United States	Telephone	(916) 921-6181	Fax (916) 921-9213

Name (Print/Type)	Bernhard Kreten	Registration No. (Attorney/Agent)	27,037
Signature			Date 11/1/99

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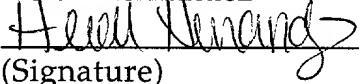
**Applicant:** Kevin Mark McFarland  
**For:** Modular, Knock-Down Tanning Bed  
**Paper:**

1. A Patent Application (Utility) (comprised of pages 1 through 18);
2. A Utility Patent Application Transmittal;
3. A Fee Transmittal (original and one copy);
4. A Declaration for Patent Application;
5. A Verified Statement Claiming Small Entity Status (Independent Inventor);
6. Recordation Form Cover Sheet (original and one copy);
7. Assignment of Patent Application;
8. A Verified Statement Claiming Small Entity Status (Small Business Concern);
9. Power of Attorney;
10. Eight (8) sheets of drawing figures (comprised of figures 1 through 9);
11. A Form PTO-1449 (including prior art copies);
12. A check in the amount of \$420.00, \$380.00 of which is to cover the filing fee for utility patent; and \$40.00 of which is to cover the fee for recordation of assignment and,
12. Return Receipt Card.

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Heidi Hernandez

  
(Signature)

November 1, 1999

(Date of Signature)

Applicant or Patentee: Kevin Mark McFarland  
 Serial or Patent No.: \_\_\_\_\_ Attorney's Docket No.: 29193-pa  
 Filed or Issued: Herewith  
 For: Modular, Knock-Down Tanning Bed

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY  
STATUS (37 CFR 1.9(f) and 1.27(b)) - INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under section 41 (a) and (b) of Title 35, United States Code, to the Patent and Trademark described in:

XXX the specification filed herewith.

\_\_\_\_ application serial no.: \_\_\_\_\_, filed \_\_\_\_\_.  
 \_\_\_\_ patent no. \_\_\_\_\_, issued \_\_\_\_\_.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign grant, convey or license any rights in the invention is listed below:

\_\_\_\_ no such person, concern, or organization.  
XXX person, concerns or organizations listed below\*

\*NOTE: Separate verified statements are required for each named person, concern or organization having rights to the invention averring to their status as small entities (37 CFR 1.27)

FULL NAME Indoor Sun Systems, Inc.

ADDRESS 11151 Trade Center Drive, Rancho Cordova, California 95670  
 [ ] individual      [X] small business concern      [ ] nonprofit organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon or any patent to which this verified statement is directed.

<u>Kevin Mark McFarland</u>	<u>NAME OF INVENTOR</u>	<u>NAME OF INVENTOR</u>
X <i>KM. McFarland</i>		
Signature of Inventor	Signature of Inventor	Signature of Inventor
<u>October 29, 1999</u>	Date	Date

Applicant: Peter Demetroulas

Serial or Patent No.: \_\_\_\_\_ Attorney's Docket No.: 29193-pa

Filed: Herewith

For: Modular, Knock-Down Tanning Bed

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY  
STATUS (37 CFR 1.9(f) and 1.27(c)) - SMALL BUSINESS CONCERN**

I hereby declare that I am

an official of the small business concern empowered to act on behalf of the concern identified below

NAME OF CONCERN: Indoor Sun Systems, Inc.

ADDRESS OF CONCERN: 11151 Trade Center Drive, Rancho Cordova, California 95670

I declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay period of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled: Modular, Knock-Down Tanning Bed, by inventor: Kevin Mark McFarland, described in:

the specification filed herewith

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

\*NOTE: Separate verified statements are required for each named person, concern or organization having rights to the invention averring to their status as small entities (37 CFR 1.27)

FULL NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

individual     small business concern     nonprofit organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Peter Demetroulas

TITLE OF PERSON OTHER THAN OWNER: Vice President

ADDRESS: 11151 Trade Center Drive, Rancho Cordova, California 95670

SIGNATURE: Peter Demetroulas DATE: October 26, 1999

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**TITLE OF THE INVENTION**

Modular, Knock-Down Tanning Bed

### **FIELD OF THE INVENTION**

The instant invention relates generally to tanning beds and more particularly to tanning beds which can be assembled from modular components without the need for special tools.

## **BACKGROUND OF THE INVENTION**

Commercial tanning beds are presently somewhat cumbersome structures both because of their bulk and weight and because of the traditional manufacturing techniques utilized in fabrication. Most structures are "clam shell" in configuration having a substantial base upon which a person seeking a tan is to lie and a counter-balanced cover moves from an open to a closed position directly overlying the person on the bed so that both sides of a person can be tanned simultaneously.

When conventional prior art beds have to be installed in a new location, they usually require special handling by trained personnel due to their cumbersome and bulky nature and because any on-site installation usually entails manipulative techniques outside the skill level of a typical prospective tanning bed owner or the owner's employees.

For example, the ballast which provides resistance that stabilizes the current in the circuit for the tanning ultraviolet lamps have been hard wired. Therefore wiring is a time consuming, tedious project requiring factory installation because it is outside the purview of all people except an experienced installer.

In addition, the structure of the tanning bed itself has historically been shipped as a monolith because the counter-balancing of the overlying tanning cover requires winches or springs which are not easy to set up outside of the manufacturing environment. Thus, the base portion and the cover itself normally travels as an integrated unit which makes shipping and deployment at the ultimate site difficult.

The prior art listed on Form PTO 1449 appended hereto reflects the state of the art of which applicant is aware and is included herewith to discharge applicant's

acknowledged duty to disclose relevant prior art. It is stipulated, however, that none of these references teach singly nor render obvious when considered in any conceivable combination the nexus of the instant invention as disclosed in greater detail hereinafter and as particularly claimed.

## **SUMMARY OF THE INVENTION**

The instant invention addresses the foregoing problems by the provision of a tanning bed structure formed from a plurality of modules which collectively define discrete components of the tanning bed. These modules are readily interconnected without the need for specialized tools. Because they have been partitioned into easy to handle sizes, they can be more readily shipped to remote sites and then assembled for utilization.

The instant invention also provides these modules with a variety of knock-down coupling instrumentalities for assembling the components into an operational tanning bed. By making the interconnectability of the relatively small number of components easy to perform, a tanning bed can be assembled or repaired in a short amount of time. Similarly, should the tanning bed need to moved to another site, this too can be performed with a minimal skill level and relatively quickly.

The structure according to the instant invention also lends itself to rapid and facile maintenance. Because the ultraviolet tubes which provide the tanning require periodic replacement, it is desirable that access to the tubes can be afforded with minimal down time and simplicity so that relatively unskilled people can provide the maintenance to keep the beds operational. Access to the bulbs and their associated ballast is readily provided to achieve these aims. As a consequence of all these features, the instant invention addresses a long felt yet heretofore unsatisfied need in the industry.

## **OBJECTS OF THE INVENTION**

Accordingly, it is a primary object of the instant invention to provide a new and novel tanning bed.

A further object of the present invention is to provide a device as characterized above which is modular in nature, formed from a plurality of components which lend themselves to ready assembly by means of a knock-down coupling regime.

A further object of the present invention is to provide a device as characterized above which is extremely easy to install, lends itself to ready shipment and can be maintained by relatively unskilled personnel.

A further object of the present invention is to provide a device as characterized above lends itself to the economies of scale of mass production and is extremely safe to use.

Viewed from a first vantage point, it is an object of the present invention to provide a tanning bed wherein a plurality of modules collectively define components of said tanning bed and includes a knock-down coupling means for assembling said components into an operational tanning bed.

These and other objects will be made manifest when considering the following detailed specification when taken in conjunction with the appended drawing figures.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1 is an exploded parts perspective view of the apparatus according to the present invention.

Figure 2 details the modular components for the ballast assembly according to the present invention.

Figures 3, 3A, 3B and 3C detail the mounting protocol for installing the canopy to an underlying bench.

Figure 4 is a front view of the figures 3 link; and figure 4A shows the shocks attached thereto.

Figures 5 and 5A are perspective views detailing: the installation of the bench and canopy onto the tanning bed supports and access to the ballast housing, respectively.

Figure 6 is a sectional view of the bench, the canopy being similar.

Figure 7 is a sectional view of one bench restraint.

Figure 8 is a sectional view of another bench restraint.

Figure 9 is a view of a face tanner.

## DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to the drawings, wherein like reference numerals denote like parts, reference numeral 10 is directed to the tanning bed according to the present invention.

Referring first to figure 5, the tanning bed 10 generally includes a pair of spaced bench supports 20 having a ballast housing 30 interposed therebetween and fixed thereto. The bench supports 20 cradle a bench 40 in removable, overlying relationship thereto. A canopy 50 is hinged to the bench 40 by removable attachment means to be described.

Each bench support 20 includes a lower horizontal member 2 and a longer upper horizontal member 4 which are interconnected by means of upwardly and outwardly diverging legs 6. The pair of bench supports 20 collectively define cradles upon which the bench 40 is to reside. The two bench supports 20 are secured in spaced parallel relationship by means of the ballast tray assembly 30. The ballast tray assembly 30 includes a lower tray 8 and an upper covering 12 within which the ballast modules are housed. Each opposite end of the ballast tray assembly includes an outwardly and downwardly projecting L shaped leg 14 on the lower tray 8 which overlies and grasps the horizontal legs 2 to fix the spaced relationship of the bench supports 20.

Figure 2 shows ballast tray 8 in greater detail. An interior is provided in the open topped tray that includes first and second ballast units 16 at opposed extremities along the length of the tray 8. The ballast units are modular in construction and includes a plurality of wires terminating in plugs 18 each of which are received within appropriate sockets 22 and then through appropriate circuitry to

outlets 24 which respectively power the bench illumination and canopy illumination 90. A timer outlet 26 leads to a timer T (figure 1) to control the amount of time that the tanning bed 10 is to remain on. The whole device 10 includes an AC outlet 28 for electrical communication in a building. The cover 12 overlies the ballast units 16, circuitry and plug inputs 22 protected by the exterior of the ballast housing 30.

The ballast is formed from a plurality of ballast modules 25 commercially available from Cosmedico Licht GmbH, Germany. They are choke ballasts, part number 74135. The ballasts 25 are each wired in series with a plurality of series wired ultraviolet lights 90. By wiring both the ballast in series as well as the lights in series, all ballast modules contribute to control circuit parameters, especially current and hold it substantially constant. Three banks  $B_1$ ,  $B_2$ , and  $B_3$ , of ballast are shown respectively connected to: face light arrays, bench light arrays and canopy light arrays to be described.

The bench 40 shown in figures 1 and 5 is a substantially hollow construct having an arcuate contour with the concave portion facing upwardly to address the prospective tanner. The bench 40 includes an arcuate bottom wall 32 and a pair of long peripheral side walls 34 which terminate at arcuate end walls 36. The end walls 36 have an inwardly directed flange 38 to slip over the side walls 34 and the bottom wall 32. The end walls 36 also abut against an edge of the clear bed cover 42 to hold it in position. The end walls 36 support foraminous, removable end caps 39 attached by fasteners 41.

Ultraviolet bulbs 90 are located within the bench 40, below the clear cover 42, and clusters of bulbs 90 are spaced from other clusters by fins 46 so that channel ways are provided between adjacent fins 46 and the long walls 34. Each end of the bench

is provided with a plurality of holes 48 to allow air to pass therethrough. Filter elements 52 are located between end wall 36 and end cap 39 to reduce contamination within the hollow interior of the bench 40. Air is drawn into the interior of the bench 40 under urging of a fan 54 that draws air from the ambient conditions into holes 48 and exhausts air through slots 56 passing through the bottom wall 32 of the bench and into an exhaust cowling 58 (please see figure 6).

Similarly, the canopy 60 has an arcuate top cover 62 (concave towards the bench) and elongate side walls 64 terminated by end walls 66 which have the same removable attachment features that the bench has. In addition, the canopy 60 includes similar filters 72 which allow air to pass within the interior 74 of the canopy and be exhausted via slits 76 provided in the canopy cover 62 after having passed through the end wall 66 via holes 78. Specifically, filters 72 are replaceable by removing the end cap 89 (having foramen 49) from the end walls 66. The canopy is provided with fans 84 that lead from a cowling 82 in a manner similar to the bench. A clear cover 86 having air channeling fins 88 integrated therewith provide the channel ways for proper air flow so that the UV tubes 90 are maintained in a temperature controlled environment. The air flow is intended to assure that the UV tubes are provided with adequate ventilation so that they operate at their optimal temperature. A thermistor 81 is included in the exhaust cowling of both the bench and the canopy to regulate the air flow rate through the fans 84 to provide optimum temperature control, particularly after use of the device 10 to assure proper cool down.

Figure 1 reflects further details on the manner in which the canopy 60 is attached to the other structure to form the tanning bed 10. As mentioned, the bench supports 20 include first and second upwardly and outwardly splayed legs 6. As

shown in figure 1, each rearward leg 6 includes a hollow interior, square in section. The interior hollow receives a post 92 frictionally within the hollow of the legs 6 in the direction of the arrow A in figure 1. Two posts 92 are provided interconnected by a transverse member 94, shaped as an angle iron.

The upper ends of the posts 92 are detailed in figures 3, 3A, 3B and 3C. Each post 92 supports a pair of gusset-like plates 96 that has a pivot 98 that supports a link 102, shown in figure 4. The link 102 is formed as two spaced parallel plates 102a, 102b united by a backwall 102c and moves along the direction of the arrow B shown in figure 3. The link 102 also includes one end 104 of a gas shock 106. Preferably, two gas shocks are on each link 102 on outside faces of plates 102a and 102b. Each gas shock 106 has a remote end attached on the post 92 adjacent the transverse member 94. The attachment is shown as a pivot 108. A telescoping rod portion 112 of the gas shock extends from the shock 106 as shown in figure 3. The link 102 also includes a catch member 114 on an end of the link 102 opposite from the pivot 98. The link 102 includes an inverted V-shaped upper end having a first surface 116 and a second surface 118. The first surface 116 is nearer the catch 114.

Figure 3A shows the link 102 being received in a hollow 128 on the canopy 60. The hollow is defined by an aluminum molding of generally arcuate configuration having an abutment 120 that is to capture the latch 114 by having the latch rest on top of the abutment 120 as shown in the various figure 3 positions. In addition, the aluminum channel includes a bead 122 which frictionally resides against a terminus of the second surface 118 adjacent a front face 102d of the link plates 102a, 102b, just at one end of the V-shaped upper end. The structure allows for ready affixion and removal of the canopy 60 from the link 102. Each gas shock is placed within the path of heat flow emanating from the lamps 90. The hollow 128 helps to provide a

heat trap near the gas shocks. The outside surface of the gas shocks conduct heat to its interior. As the gas shocks heat up, the temperature of the internal gas increases, resulting in greater internal pressure. This gives the gas shock a performance boost during use and makes the canopy actually easier to move between the first and second extreme positions by a tanner than when the shocks are cold.

Referring to figure 1, figure 5, figure 5A, figure 7 and figure 8, the mechanism by which the bench 40 attaches to the supports 20 can be explored. The rear leg 6 of the support 20 includes an L-shaped projection 132 having a tapered leading edge disposed in a horizontal plane, the taper 134 coming to a point to allow locating and inserting the projection 132 into a complementally formed slit 138 on the backside rail 34 of the bench. Please see figure 8.

In addition, the front rail 34 of the bench 40 is secured by another slit 148 which receives a hook 142 located on a cradle strap 144 that extends between the forward leg 6 and the upper horizontal leg 4. A similar strap 128 is located between the rear leg 6 and the horizontal leg 4. These straps 128, 144 cradle and support the bench in its down position, and the latch mechanism 142 secures the bed in that at rest state. A tang 146 (figure 7) depends from the strap 144 and supports a pivot lever 148 coupled to the hook 142 and pinned via pivot 152 to the tang 146. The pivot 152 is offset to provide a cam-like locking action, and the hook 142 is pivoted to the pivot lever 148 via a pivot 154.

Figures 7 and 8 are also instructive in noticing how the cover 42 sets into the side rails 34 so that a smooth transition exists at the juncture. As shown in each of these drawings, gasket material 156 resides within a channel 158 formed in the side rails 34 on inner facing edges thereof so that the gasket 158 seats therewithin. The cover 42 is frictionally held between the two gaskets and is then urged to stay in this

position to be tailored to accommodate the complementary curvature of the bench 40 as it extends along the top edges of the fins 46 and the ledge 162 formed adjacent the cover 42 on the interior portion of the side walls 34. This feature allows the cover 42 to be frictionally held with a close tolerance at the juncture where the side walls 34 come into contact with the cover 42 and is frictionally held there yet easy to replace or remove for access to the ultraviolet lights 90. Cover 42 is formed from acrylic and is of a thickness that allows it to be bent to form the arcuate shape supported on the elements recited above. The top cover 86 can be similarly retained.

Figures 5 and 5A shows the platform 40 being held in an elevated position off of the straps 128 and 144 yet still adapted to pivot about the projection 134. A stand member 162 is interposed between the bottom surface 32 of the bench 40 and the forward leg 6 to prop the platform 40 in an elevated position. This allows access to the ballast assembly 30 which in figure 5A is shown open should it be necessary to remove any of the modules which are depicted in figure 2.

Figure 9 shows a variation in a tanning canopy 60' and only the non-duplicative elements are illustrated. In this variation, a zone of increased ultraviolet radiation is provided oriented adjacent a face area of the user. Typically, one's face has a greater degree of resistance to tanning since it is exposed at all times, unlike other parts of the body. Thus, the face can withstand a greater degree of ultraviolet radiation. As shown in figure 9, the end wall 66', filter 72' and end cap 89' have been included with a raised boss 165 including a radiused transition area 163 to accommodate the modules 172 that house the higher intensity UV bulbs 90'. Clusters of as many as four of the high output UV bulbs 90' are located in each cluster 172, and each of which is constrained to operate within a box-shaped well 174 which secures to the inverted support tray 171 of module 172. A window 176

separates the user from the bulbs 90'. In addition, because of the additional heat generation, a plurality of fans 178 augment the air flow through this area. These fans 178 are preferably of the "cross blow" type with cages 182 driven by motors 184 to provide additional air flow. The air ventilation holes 78' have been shown along with the ultraviolet lights 90.

Moreover, having thus described the invention, it should be apparent that numerous structural modifications and adaptations may be resorted to without departing from the scope and fair meaning of the instant invention as set forth hereinabove and as described hereinbelow by the claims.

## CLAIMS

I Claim:

Claim 1 - A tanning bed comprising in combination:

a plurality of modules collectively defining components of said tanning bed,

and knock-down coupling means for assembling said components into an operational tanning bed.

Claim 2 - The bed of claim 1 wherein said components include a pair of spaced bench supports including a ballast housing interposed between said bench supports and means fixing said ballast housing to said bench supports in removeable relationship thereto.

Claim 3 - The bed of claim 2 wherein said bench supports cradle a bench in removeable overlying relationship thereto, said bench provided with illumination means for tanning.

Claim 4 - The bed of claim 3 including a canopy operatively connected to said bench by removeable attachment means, said canopy provided with illumination means for tanning.

Claim 5 - The bed of claim 4 wherein said ballast housing includes a pair of outwardly and downwardly projecting L-shaped legs which overlie and grasp portions of said bench supports.

Claim 6 - The bed of claim 5 wherein said ballast housing receives therewithin a plurality of ballast units formed as modules, each of said modules formed from choke ballasts oriented in series and terminating at a plug.

Claim 7 - The bed of claim 6 wherein the illumination means are a plurality of ultraviolet lights connected in series to said choke ballasts such that collectively said choke ballasts and said lights maintain current at a substantially constant level.

Claim 8 - The bed of claim 4 wherein said bench supports fasten to said canopy and a pair of posts project upwardly from said bench supports in frictional telescoping relationship, said posts including a pivot that supports a link operatively coupled to said canopy and adapted to allow said link and said canopy to move from a first open position wherein a tanner can lie on the bed to a second closed position where said canopy is in overlying relationship with respect to said bed and said tanner, and gas shock means operatively coupled with said link and said post in a path of heat radiation whereupon gas within said shock elevates in temperature upon utilization of said bed increasing the effectiveness of said gas shock.

Claim 9 - The bed of claim 8 wherein said link is received within a hollow of said canopy, said canopy including an abutment which captures a latch projecting from said link, said hollow including a bead which frictionally resides against a terminus of said link.

Claim 10 - The bed of claim 4 wherein said bench attaches to said bench supports on one edge thereof by means of a projection on said bench support being received within a complementally formed slit on said bench, said slit provided with adequate clearance to allow articulation of said bench about said projection.

Claim 11 - The bed of claim 10 wherein an opposite side of said bench includes another slit which receives a hook supported on said bench support, said hook having releasable fastening means to release said bench relative to said bench support.

Claim 12 - The bed of claim 10 including a stand member which is interposed between said bench support and said bench to allow said bench to remain in an elevated secure position above said bench supports.

Claim 13 - The bed of claim 4 wherein a cover is provided on a concave surface of said bench and is fixed within a peripheral ledge on said bed circumscribing said cover, said cover residing on said ledge, and a plurality of fins interposed between clusters of illumination means and underlying said cover, said cover frictionally held from said bench by means of gaskets.

Claim 14 - The bed of claim 4 wherein said canopy and said bench includes a plurality of air passageways extending longitudinally along said canopy and said bench providing cooling air from end walls of said canopy and said bench through filters located at said end walls and slits in said canopy and said bench to exhaust air by a fan mounted adjacent said slits and controlled by a temperature sensing means.

Claim 15 - The bed of claim 14 including a zone of increased radiation disposed on said canopy and oriented to address a face area of said user, said zone of increased ultraviolet radiation formed from a plurality of clusters of high output ultraviolet radiation, each cluster constrained to operate within a boxed-shaped well secured to an inverted support tray and separated from a tanner by a window.

Claim 16 - The bed of claim 15 including a plurality of fans oriented upstream from said zone of increased ultraviolet radiation to augment air flow in the face area.

## **ABSTRACT OF THE DISCLOSURE**

A tanning bed formed from a plurality of modular components that are integrated in a knock-down fashion that allows easy shipment of tanning beds in less than complete form, but allows the rapid assembly without the need of special training or tools.

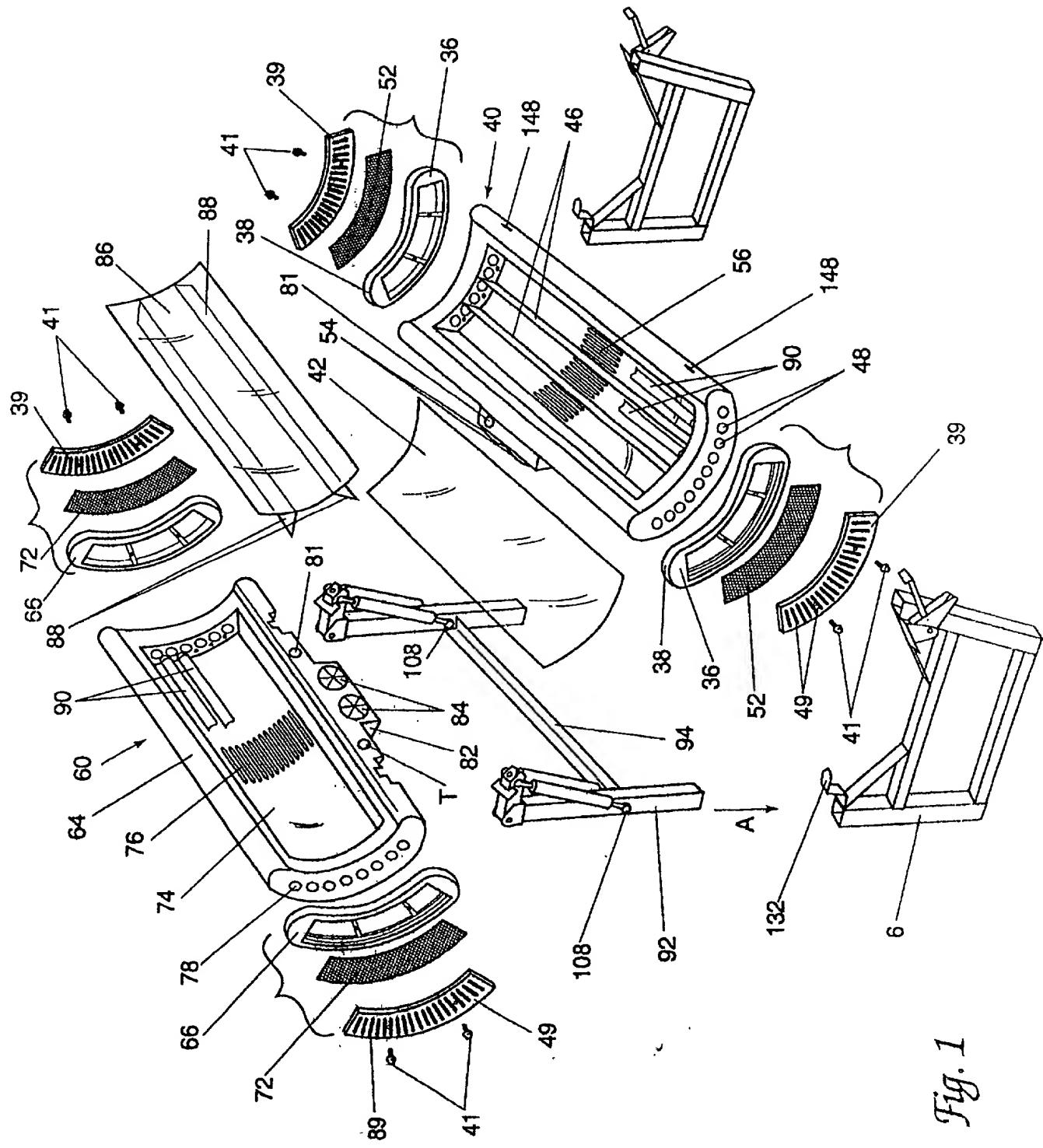


Fig. 1

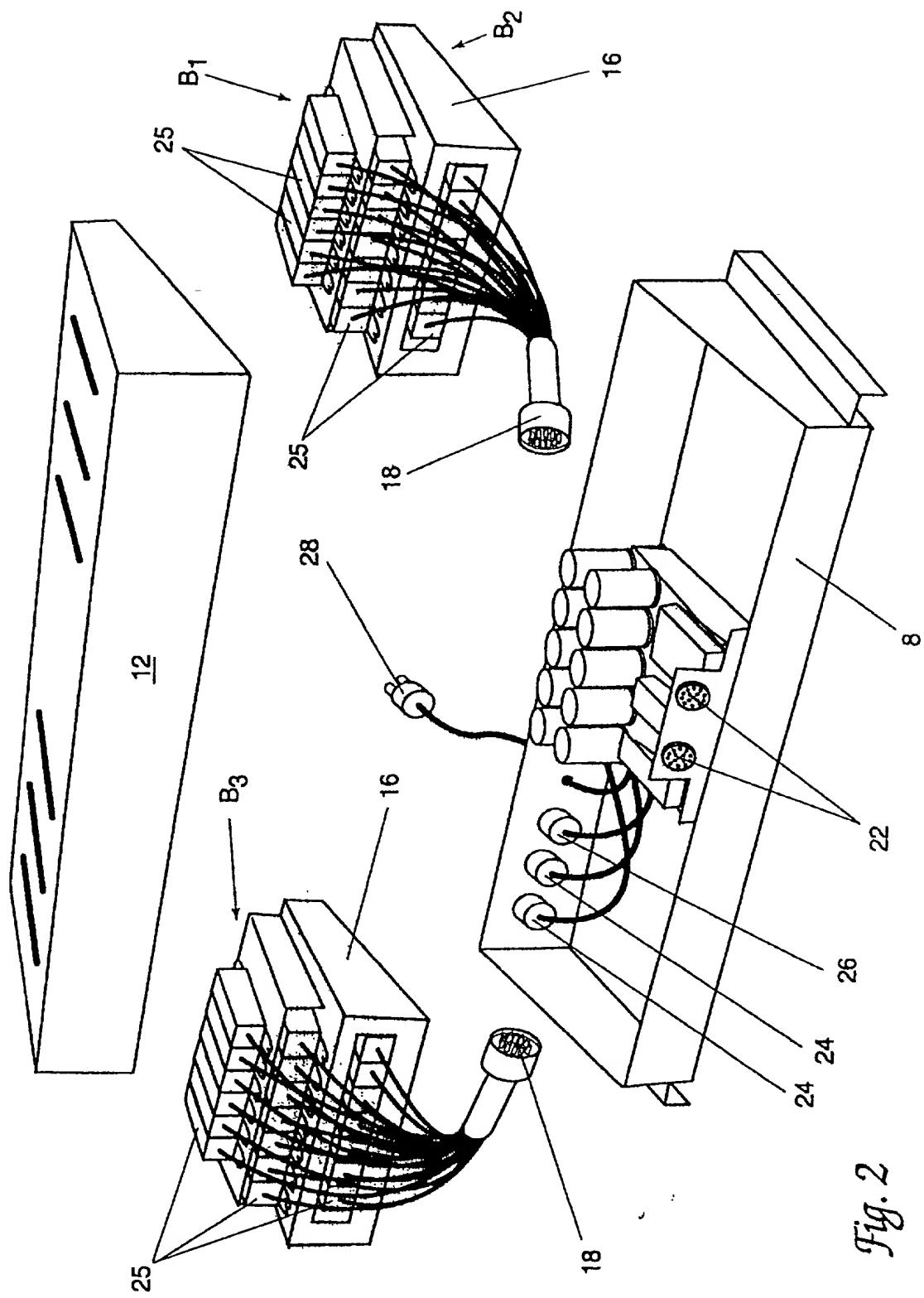


Fig. 2

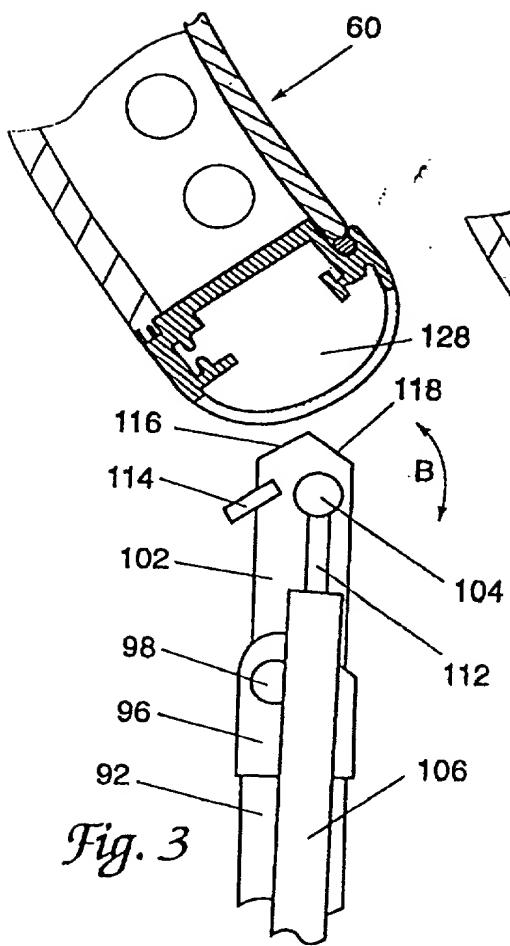


Fig. 3

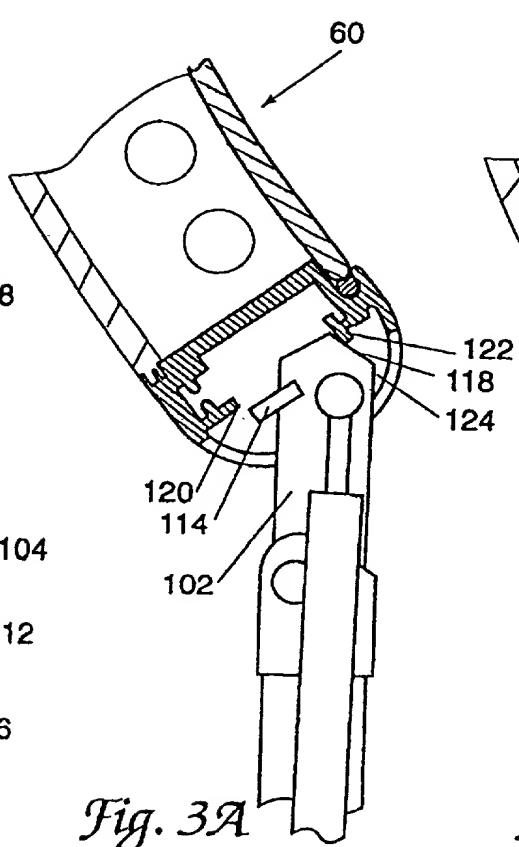


Fig. 3A

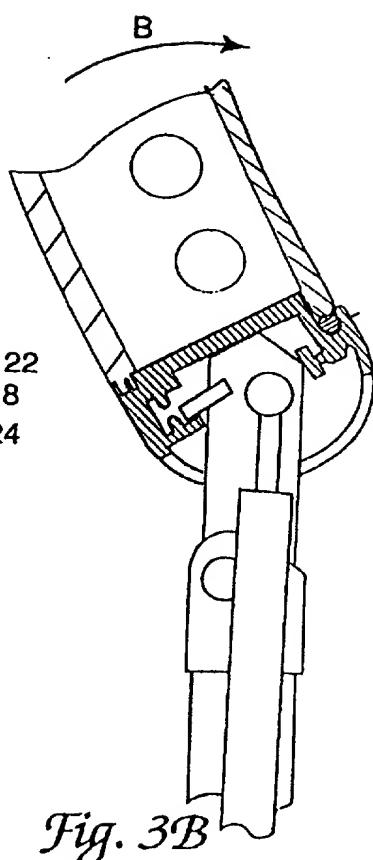


Fig. 3B

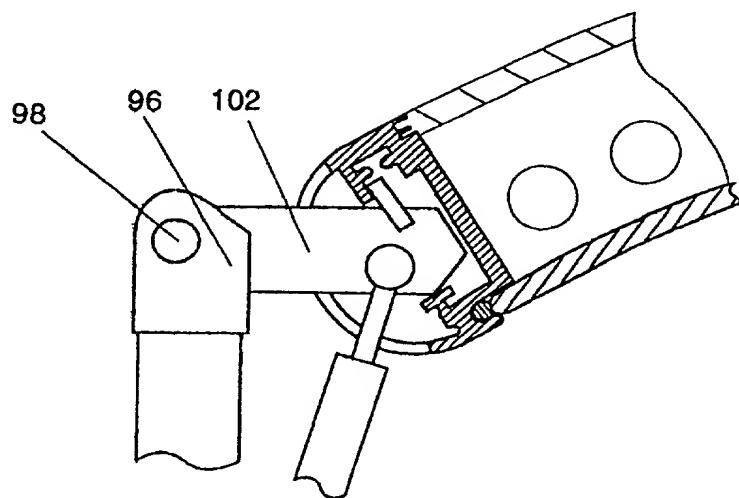


Fig. 3C

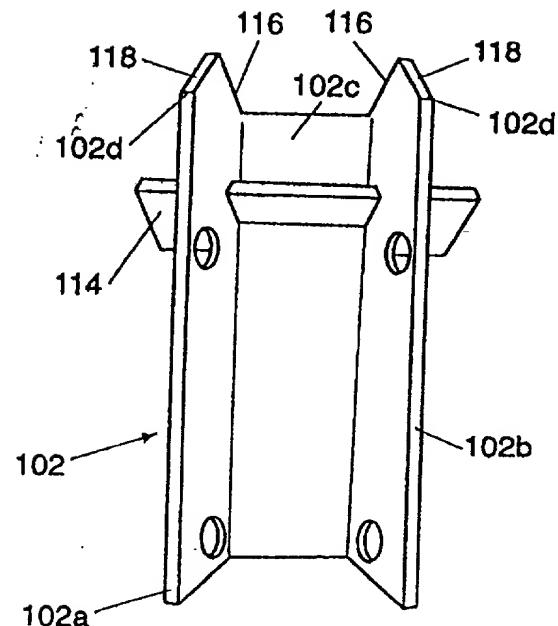


Fig. 4

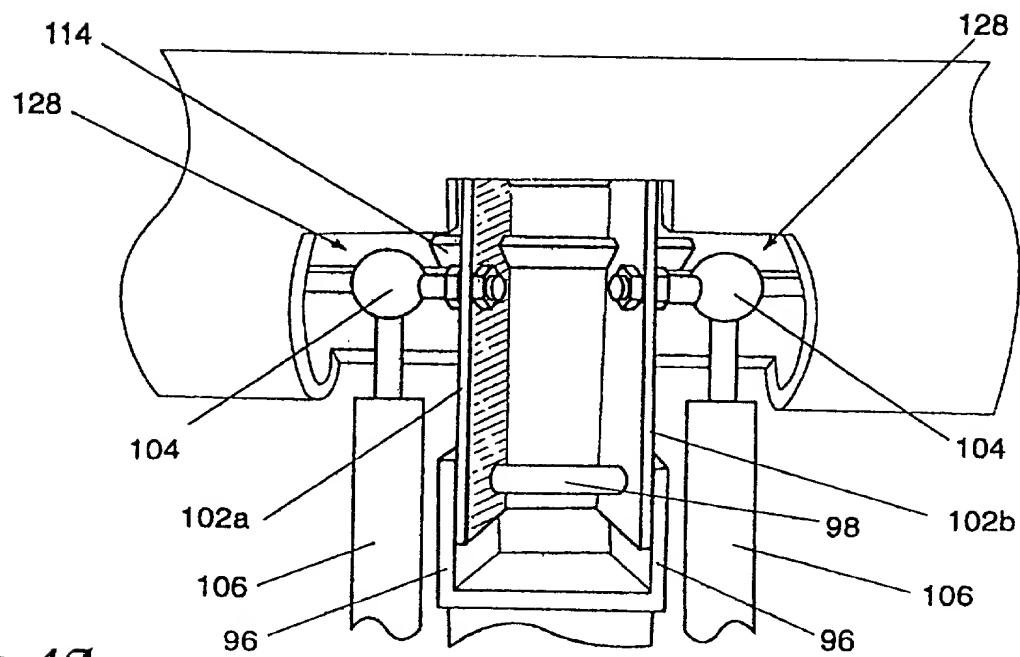
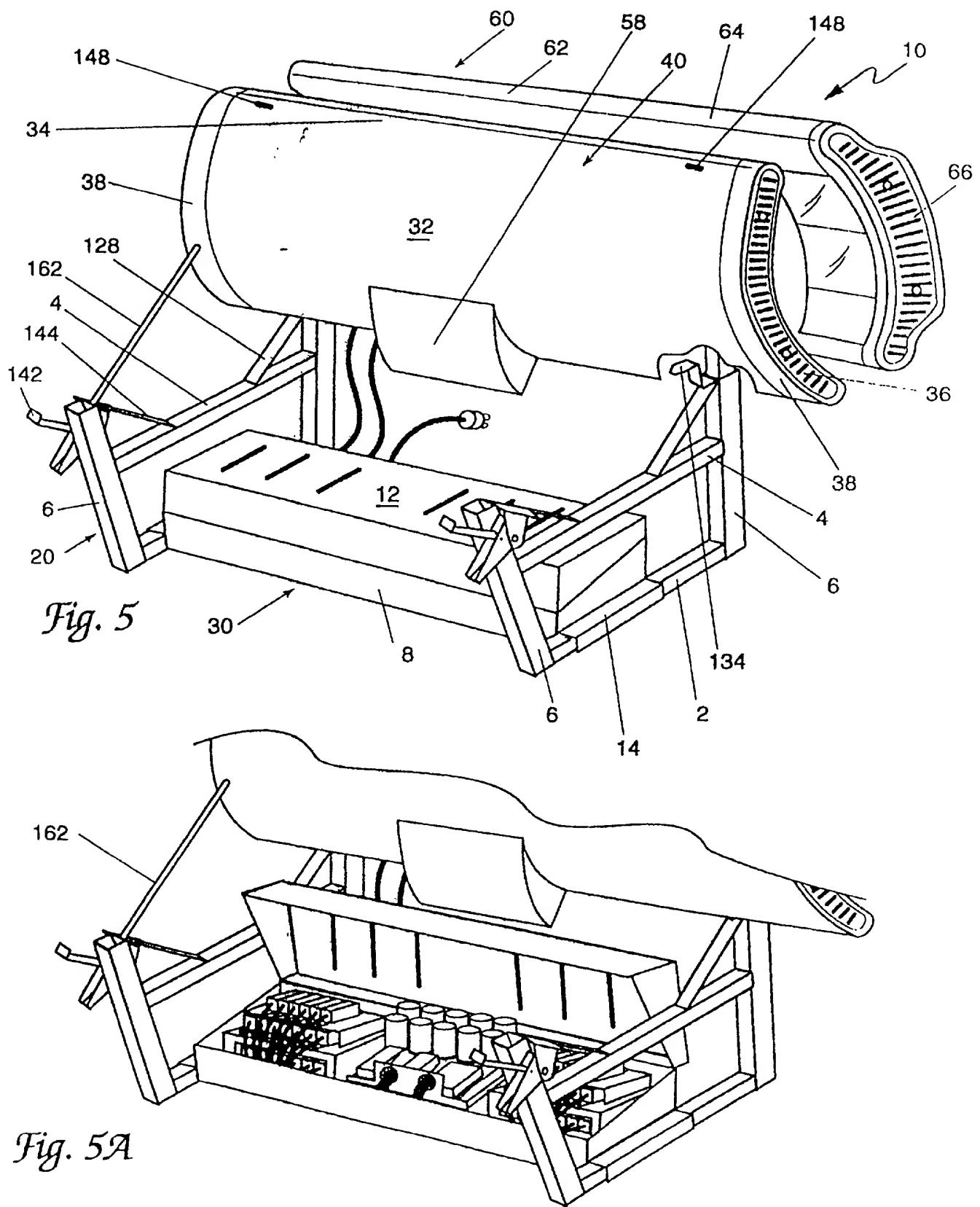


Fig. 4A



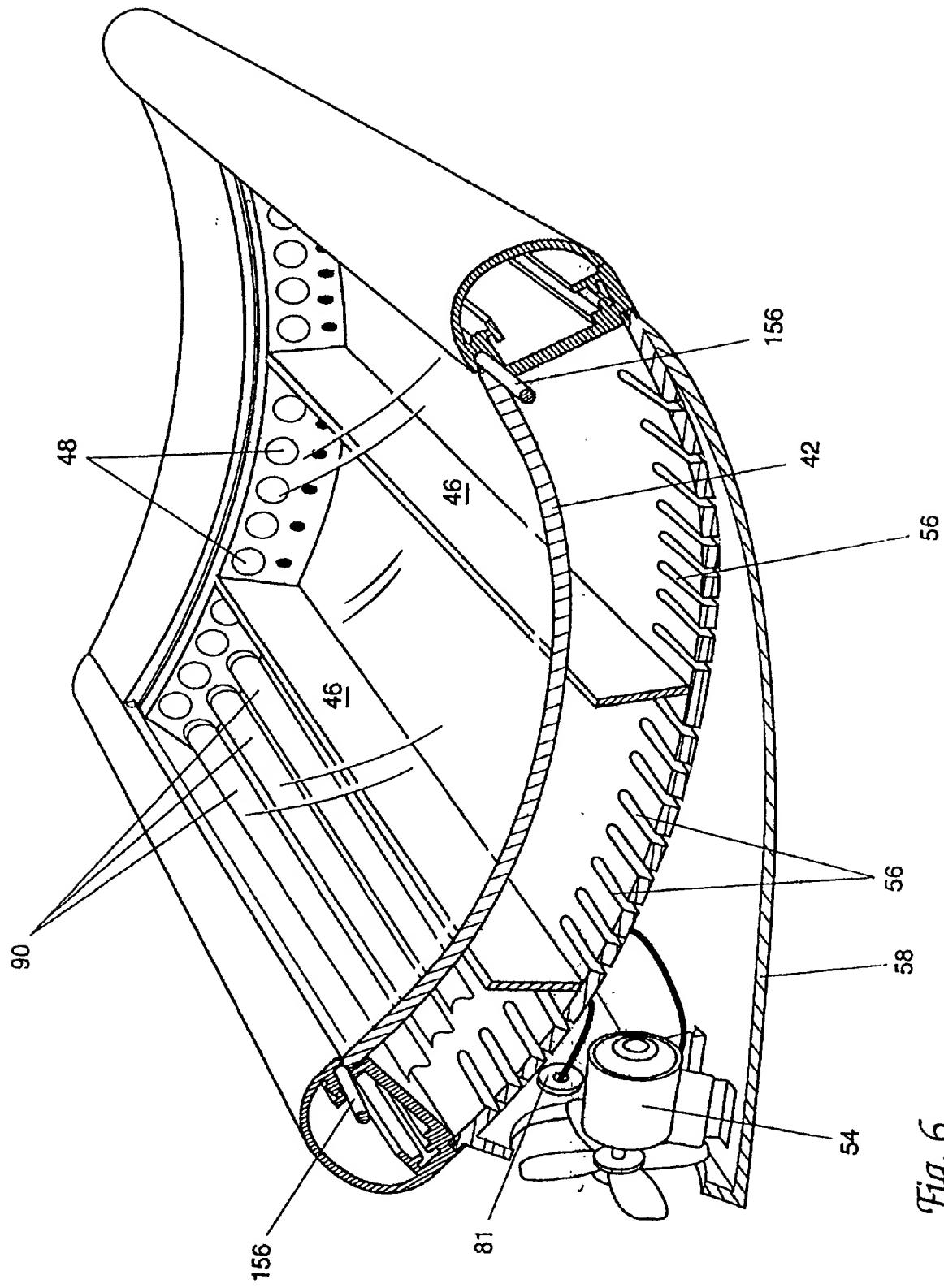


Fig. 6

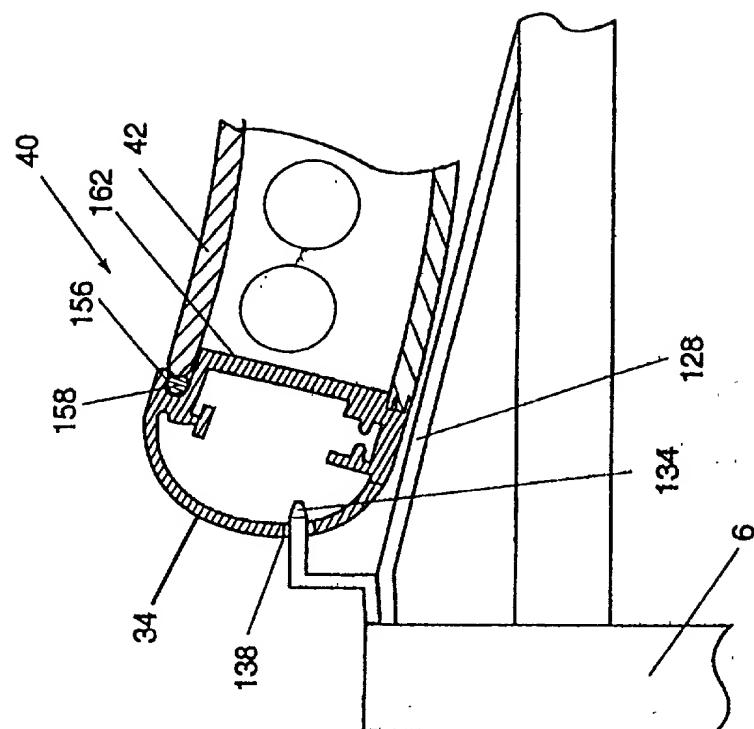


Fig. 8

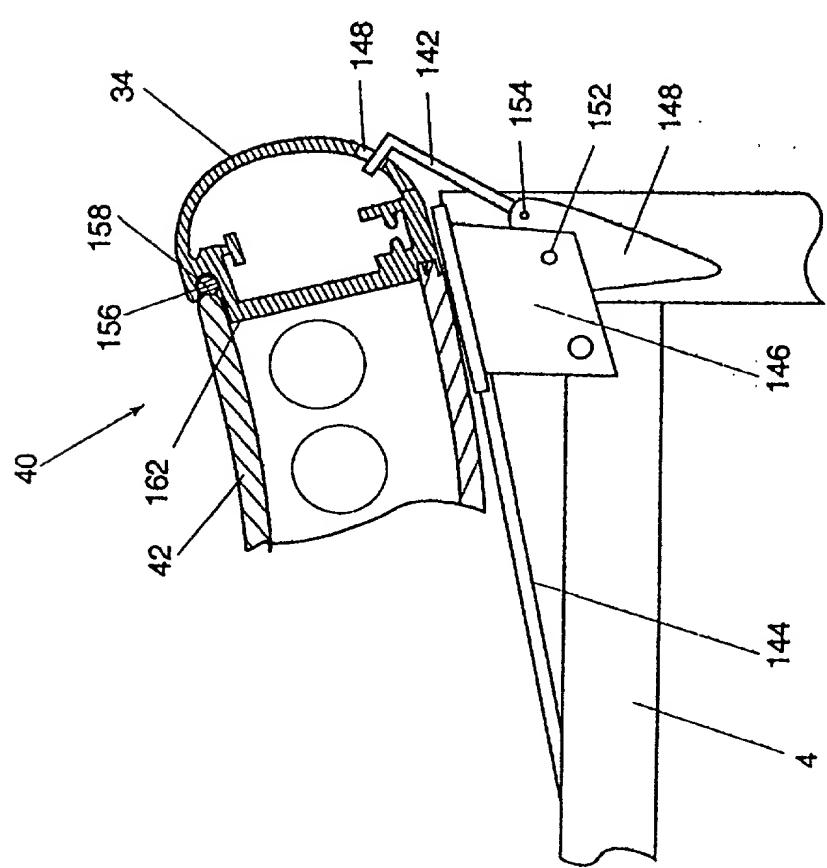
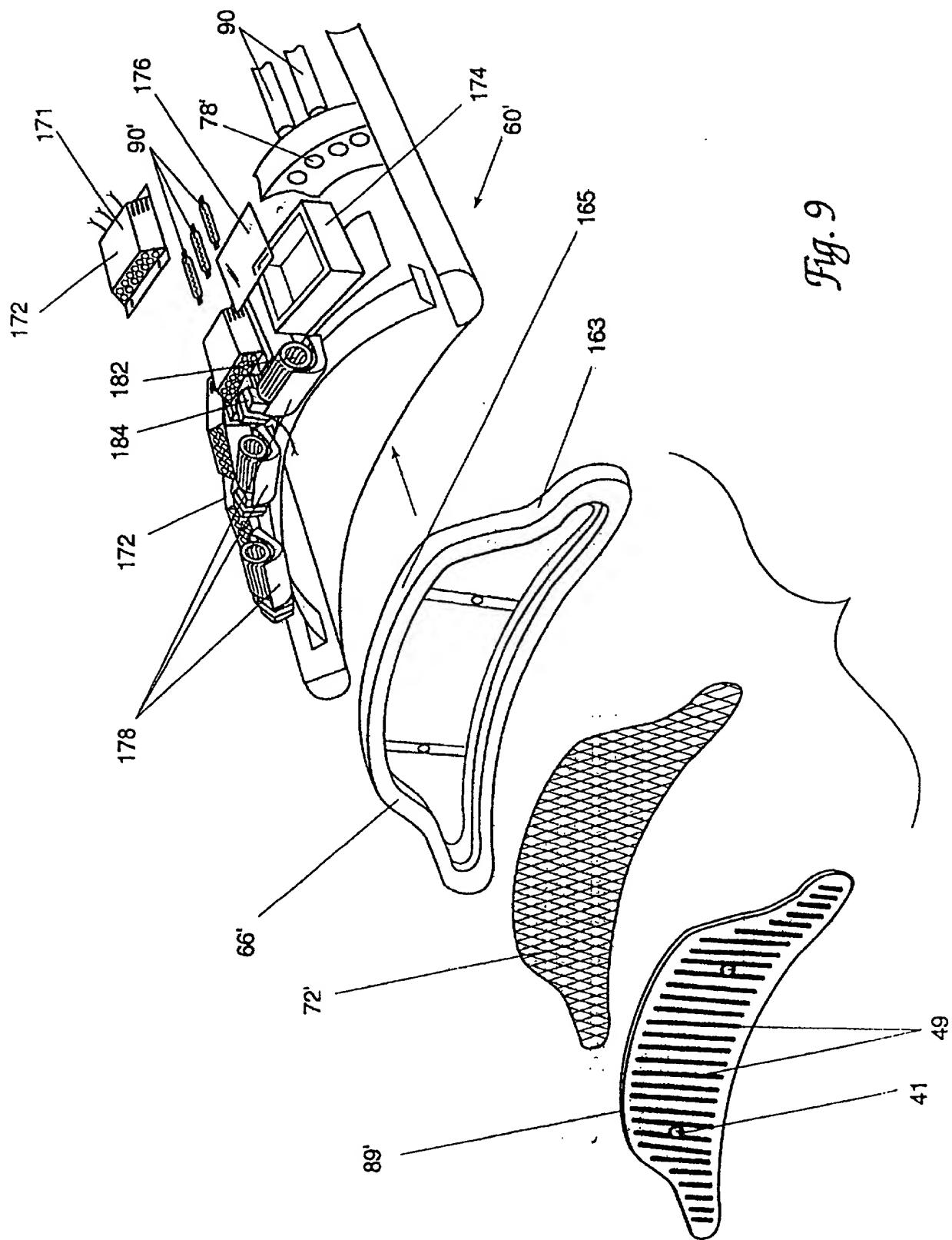


Fig. 7

*Fig. 9*



DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled Modular, Knock-Down Tanning Bed, the specification of which:

XX is attached hereto.

was filed on \_\_\_\_\_ as Application Serial No.: \_\_\_\_\_  
and was amended on: \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37. (Code of Federal Regulations 1.56(a)).

I hereby claim foreign priority benefits under Title 35, U.S. Code 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)	Priority Claimed NO
------------------------------	------------------------

(Number)	(Country)	(Day/Month/Year)
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I hereby claim the benefit under Title 35, U.S. Code 120 of any U.S. application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior U.S. application in the manner provided by the first paragraph of Title 35, U.S. Code 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, 1.56(a), which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)	(Filing Date)	(Status-patented, pending, abandoned)
--------------------------	---------------	---------------------------------------

I hereby appoint BERNHARD KRETEK, Reg. No. 27,037 to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Address all telephone calls to: (916) 921-6181

Address all correspondence to 77 Cadillac Drive, Suite 245, Sacramento, California 95825

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Inventor: Kevin Mark McFarland Citizenship: United States

Inventor's Signature: K.M. McFarland Date: October 29, 1999

Residence: 8539 Nephi Way, Fair Oaks, California 95628

Post Office Address: 8539 Nephi Way, Fair Oaks, California 95628

**POWER OF ATTORNEY**

The undersigned assignee, **Indoor Sun Systems, Inc., 11151 Trade Center Drive, Rancho Cordova California 95670**, hereby appoints:

**BERNHARD KRETEN, Reg. No. 27,037, 77 Cadillac Drive, Suite 245, Sacramento, California 95825**

as agent to prosecute and transact all business in the Patent and Trademark Office connected with the application on **Modular, Knock-Down Tanning Bed**, Agent's Reference No.: **29193-pa**, filed herewith, and to receive or make payments on its behalf.

Signature of the assignee:

Date: October 29, 1999

**Indoor Sun Systems, Inc.**

  
\_\_\_\_\_  
By: Peter Demetroulas  
Its: Vice President